Typed First-Class Traits (Artifact)

Xuan Bi[1]
The University of Hong Kong, Hong Kong, China
xbi@cs.hku.hk

Bruno C. d. S. Oliveira[1]
The University of Hong Kong, Hong Kong, China
bruno@cs.hku.hk

Abstract

This artifact contains the prototype Haskell implementation of SEDEL, with support for first-class traits, as described in the companion paper. This artifact also contains the source code of the case study on "Anatomy of Programming Languages", illustrating how effective SEDEL is in terms of modularizing programming language features. For comparison, it also includes a vanilla Haskell implementation of the case study without any code reuse.

1 Scope

This artifact contains the prototype Haskell implementation of SEDEL (a REPL and a type-checker), with support for first-class traits, as described in the companion paper. This artifact also contains the source code of the case study on "Anatomy of Programming Languages", illustrating how effective SEDEL is in terms of modularizing programming language features. For comparison, it also includes a vanilla Haskell implementation of the case study without any code reuse. There are also several SEDEL examples to get the readers familiar with its syntax.

2 Content

The artifact package includes:
- `impl` directory: Haskell project containing the source code of SEDEL;
- `examples` directory: the source code of case study, as well as some SEDEL examples;
- `haskell` directory: Haskell implementation of the case study;
- `README.pdf` : Instructions of how to build the artifact.

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3 Getting the artifact

The artifact endorsed by the Artifact Evaluation Committee is available free of charge on the Dagstuhl Research Online Publication Server (DROPS). In addition, the artifact is also available at: `https://github.com/bixuanzju/first-class-trait`.

4 Tested platforms

The artifact is known to work on any platform running GHC (version 8.2.2 or later).

5 License

BSD

6 MD5 sum of the artifact

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7 Size of the artifact

485 KB